

REMARKS

Receipt of the Final Rejection mailed January 27, 2009 is hereby acknowledged. With the accompanying Petition for a Two-Month Extension of Time, this amendment is timely as it is being filed on or before June 27, 2009. Applicants are also concurrently filing a Request for Continued Examination, and accordingly request entry of the foregoing amendments. With these amendments, claims 1 and 16-34 are pending and under consideration.

Claim 1 has been amended to specifically recite that the claimed method produces guanylylurea dinitramide. This amendment is supported by original claim 3, as well as in the specification at page 2, lines 34-36. Claim 16 is supported by original claim 7 and at page 3, lines 15-19. Claim 17 is supported in the specification at page 3, line 20. Claims 18-20 are supported in the specification at page 2, line 10. Claims 21-22 and 34 are supported in the specification at page 4 in Example 1. Claims 23-27 are supported in the specification at page 3, lines 28-29. Claims 28-33 are supported in the specification at page 4, lines 9-13.

No new matter has been added.

The Examiner has rejected claims 1-2 under 35 U.S.C. § 102(b) as allegedly anticipated by Langlet, et al.,

U.S. Patent No. 5,976,483 ("Langlet I"). The Examiner has also rejected claims 3-6 and 9 under 35 U.S.C. § 103(a) as allegedly unpatentable over Langlet I and further in view of Langlet, et al., U.S. Patent No. 6,291,711 ("Langlet II"). Claims 7-8 and 14-15 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Langlet I and Langlet II, and further in view of Seyerl, U.S. Patent No. 4,559,409 ("Seyerl").

Langlet I discloses a method for the preparation of dinitramidic salts by nitration of an initial compound and forming of a dinitramidic acid. As the Examiner has correctly noted, this process can be done in an acid environment. Thereafter the solution is neutralized. This is performed by adding for example a salt AX, wherein A can be a nitrogen containing cation. When A is a nitrogen containing cation, it may consist of an ion of a number of different formulas, as set forth at column 3, lines 8-23. However, none of the possible compounds set forth in Langlet I cover the structure of guanylurea or its ions, or cyanoguanidine. (See column 3, rows 8-23).

By contrast, pending claim 1 (the only independent claim) recites the use of guanylurea ions. Thus, Langlet I - which does not teach or disclose the use of guanylurea ions - cannot anticipate the claims, and the § 102(b) rejection should be withdrawn. Use of guanylurea ions in the presently claimed

process is critical. This is because use of guanylurea ions permits recycling of the reaction mixture and reprocessing of the reaction mixture as an acid, because the guanylurea dinitramide that is formed is stable in the acid environment and is precipitated directly from the acid reaction mixture without neutralization of the reaction mixture. Thus, the use of guanylurea ions solves the problem with recycling and reprocessing of the reaction mixture in an environmentally friendly and economical way.

Moreover, a person skilled in the art would not have chosen to use guanylurea or a protonated form thereof, which are not mentioned as an option in Langlet I, to neutralize the reaction mixture. One of skill in the art would recognize that the reaction mixture of Langlet I is very acidic, with the pH of such a mixture being at or below 0. To neutralize such a reaction mixture, the person of skill in the art would choose a strong base. However, the guanylurea ion is not a base but instead acts as a weak acid. Therefore, adding guanylurea or a protonated form thereof to the reaction mixture could not possibly raises the pH of the solution in Langlet I to 7 (or even 7 ± 1), even if added in enormous amounts.

Moreover, a person skilled in the art with knowledge of Langlet I who was considering the problem of recycling of the

reaction mixture and reprocessing of the reaction mixture in an environmentally friendly and economical way would have been lead to the step of neutralizing the pH to a value to pH 7 ± 1 instead of keeping the acidity well below this value, as occurs in the presently claimed method. In fact, Langlet I clearly states that working at low pH's cannot be done as the formed dintramidic acid is unstable in an acid environment. See, column 2, rows 22-25. Thus, a person skilled in the art aiming to recycle the reaction mixture and reprocess the reaction mixture in an environmentally friendly and economical way would not arrive at the invention with the help of the teachings in Langlet I.

Langlet I's process uses nitrating acid, which is a mixture of sulphuric acid and nitric acid, as a chemical in the process of making dinitramidic acid salts. Langlet II uses sulphuric acid as a chemical in the process of making guanylurea dinitramide ("GUDN") (see e.g. Example 1). GUDN is formed in a reaction mixture that is moderately acidic (pH 5-7, col. 3, lines 32-34). The acidity is achieved by adding sulfuric acid to the water. The use of a slightly acidic reaction mixture makes the process of Langlet II very different from the process of Langlet I, which uses a nitrating acid as a reaction mixture for its process; the two alternatives are never interchangeable in chemical contexts.

It would never, therefore, occur to a person skilled in the art to substitute a moderately acidic solution, wherein the pH value is kept to about pH 5-7, with nitrating acid, with a pH at or below 0. The two different solutions have in chemical aspects totally different fields of use. The person of skill in the art would therefore never combine the teachings of the two documents, which concern essentially different chemical processes.

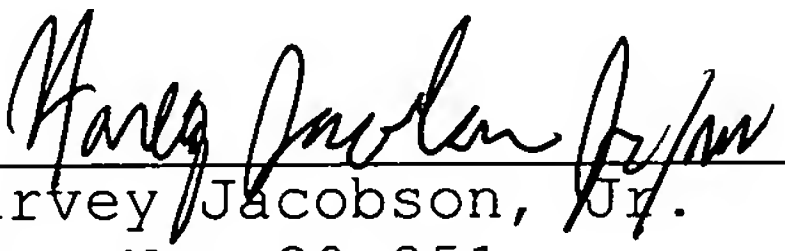
Thus, the presently claimed invention would not have been obvious over Langlet I in view of Langlet II. Seyerl - which is directed to a process for the production of guanyluarea sulfamate - does not cure these deficiencies. Accordingly, Applicants respectfully request withdrawal of the obviousness rejection.

Conclusion

It is believed that in view of the foregoing amendments and remarks the claims are now in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,

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